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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,795	10/15/2001	David C. Andreas	75622.P0040	4430

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William D. Davis
Davis & Associates
Box 1093
Dripping Springs, TX 78620

EXAMINER

MASON, DONNA K

ART UNIT PAPER NUMBER

2111

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,795

Applicant(s)

ANDREAS ET AL.

Examiner

Donna K. Mason

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 2, 4-12, 14, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 recites the limitation "the received channel identifier" in line 8. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 7 recites the limitation "the channel identifier" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is recommended that "the channel identifier" be changed to --the received channel identifier--.
5. Claim 9 recites the limitation "the command" in line 11. There is insufficient antecedent basis for this limitation in the claim. It is recommended that "the command" be changed to --a command of the remaining command sequence--.
6. Claim 17 recites the limitation "the plurality of second channel identifiers" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim. Contrary to Applicant's arguments (see remarks in Paper received August 10, 2004), a plurality of channel identifiers is not claimed. Only an "initial channel identifier" and a "first" and "second" identifier have been claimed. Furthermore, it is unclear whether the "first channel identifier" or the "second channel identifier" refers to the same or a different identifier as the "initial channel identifier."

7. Claims 2, 4-6, 8, 10-12, and 14 inherit the deficiencies of their respective independent claims.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4-12, and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Token-Ring Architecture (The Details Count When Choosing a Topology)*, by Stephan D. Cote, CCP, CNE ("Coté").

With regard to claims 1, 2, 4-12, and 14-20, Coté discloses a method, serial device, and apparatus, the method including the steps of: a) providing a command sequence containing a channel identifier to a receiving device of a plurality of daisy chained devices; b) modifying the channel identifier within a received command sequence to generate a modified command sequence having a modified channel identifier for transmission to the next device in the daisy chain; and c) executing a command of the received command sequence on any device receiving the command if the received channel identifier within that received command sequence matches a pre-

Art Unit: 2111

determined value, wherein each of the plurality of devices uses the same pre-determined value for comparison (see the Description on page 2), as recited in claims 1, 9, and 15. With regard to claims 2, 4-12, 14, and 16-20, see *generally* pages 4-7.

Therefore, Coté reads on the invention as specified in claims 1, 2, 4-12, and 14-20.

3. Claims 1, 2, 4-12, and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,933,935 to Adams.

With regard to claims 1, 2, 4-12, and 14-20, Adams discloses a method, serial device, and apparatus, the method including the steps of: a) providing a command sequence containing a channel identifier to a receiving device of a plurality of daisy chained devices; b) modifying the channel identifier within a received command sequence to generate a modified command sequence having a modified channel identifier for transmission to the next device in the daisy chain; and c) executing a command of the received command sequence on any device receiving the command if the received channel identifier within that received command sequence matches a pre-determined value, wherein each of the plurality of devices uses the same pre-determined value for comparison (see column 3, lines 59-68 to column 4, lines 1-30).

Therefore, Adams reads on the invention as specified in claims 1, 2, 4-12, and 14-20.

4. Claims 9, 10, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0016875 to Yokoyama.

With regard to claims 9, 10, and 12, Yokoyama discloses a serial device apparatus including: a serial input port for receiving a first command sequence having a first channel identifier and a remaining command sequence (Fig. 3, item 9b); a daisy chain output port (Fig. 3, item 9a); and command sequence processing logic for modifying the first channel identifier to form a second channel identifier, wherein the command processing logic provides the second channel identifier and the remaining command sequence to the daisy chain output port (paragraph [0037]); and command execution logic for executing the command if the first channel identifier matches a pre-determined value (paragraphs [0044] and [0045]). Yokoyama also discloses the apparatus where the first channel identifier is incremented to form the second channel identifier (paragraph [0037]).

Therefore, Yokoyama reads on the invention as specified in claims 9, 10, and 12.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama.

As discussed above regarding the 35 U.S.C. 102(e) rejection, Yokoyama discloses all the features of independent claim 9. Yokoyama does not expressly

disclose the apparatus where the first channel identifier is decremented to form the second channel identifier.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the first channel identifier by decrementing the first channel identifier to form the second channel identifier. Applicant has not disclosed that decrementing the first channel identifier to form the second channel identifier provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art would have expected Applicant's invention to perform equally well with incrementing the first channel identifier to form the second channel identifier (paragraph [0037]) because whether the first channel identifier is incremented, as disclosed in Yokoyama, or decremented, as disclosed in the present invention, Applicant's invention will perform equally as well.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Yokoyama to obtain the invention as specified in claim 11.

7. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama in view of Applicant's Admitted Prior Art ("APA").

With regard to claims 15 and 16, Yokoyama discloses an apparatus including: a bus master (Fig. 3, item 40; paragraph [0036]) providing an initial command sequence having an initial channel identifier; a plurality of serial devices (Fig. 3, items 50, 60, and 70), each device comprising: a serial input port for receiving a first command sequence having a first channel identifier and a remaining command sequence; a daisy chain

output port (Fig. 3, item 9a); and command sequence processing logic for modifying the first channel identifier to form a second channel identifier, wherein the command processing logic provides the second channel identifier and the remaining command sequence to the daisy chain output port (paragraph [0037]); and a bus coupling the serial devices in a daisy chain configuration (Fig. 3).

With regard to claims 17-20, Yokoyama discloses the apparatus where when coupled in the daisy chain configuration, the bus master provides the initial command sequence to a first serial device of the plurality of devices (paragraph [0036]; and Fig. 3, items 40 and 50), wherein each subsequent device receives a modified command sequence including the second channel identifier and the remaining command sequence provided by a preceding serial device, wherein the plurality of second channel identifiers is distinct. Yokoyama also discloses the apparatus where each serial device further includes command execution logic, wherein the command execution logic executes the command sequence received by that device if the associated channel identifier matches a pre-determined value shared by the plurality of serial devices (paragraphs [0044] and [0045]).

Further in regards to claims 15 and 16, Yokoyama does not expressly disclose a bus coupling the serial devices in a non-daisy-chain normal configuration, or the apparatus where each of the plurality of devices receives the initial command sequence substantially simultaneously.

The APA discloses a bus coupling the serial devices in a normal configuration, or the apparatus where each of the plurality of devices receives the initial command

sequence substantially simultaneously (page 1, lines 15-21). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the APA with Yokoyama. The suggestion or motivation for doing so would have been to provide the serial devices with the capability of responding or acting on information communicated when their respective select lines are asserted (page 1, lines 16 and 17).

Therefore, it would have been obvious to combine the APA with Yokoyama to obtain the invention as specified in claims 15-20.

Response to Arguments

8. Applicant's arguments, see pages 9-12, filed August 10, 2004, with respect to the 35 USC 102(e) rejection of claims 1, 2, 4-8, and 14 in view of Yokoyama have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Côté and Adams.

The Examiner is persuaded that Yokoyama does not expressly disclose executing a command *of the received command sequence*, if the received channel identifier matches a pre-determined value. Yokoyama teaches executing a control command, which differs from the taught received command sequence, if the received channel identifier matches a pre-determined value (see "control command" in paragraphs [0044] and [0045] and compare with "cascade connection command" in paragraphs [0037]-[0039]).

However, the Examiner is not persuaded that Yokoyama does not teach or suggest "modifying the channel identifier within a received command sequence to generate a modified command sequence having a modified channel identifier for transmission to the next device in the daisy chain." Yokoyama clearly teaches this features as described in paragraphs [0037], [0038] and [0039]. With reference to Fig. 3, a channel identifier of "00" is received by camera 50. Camera 50 modifies the received channel identifier by incrementing "00" to form the modified channel identifier "01" (paragraph [0037]). Camera 60 receives the modified channel identifier of "01", which is then incremented to form another modified channel identifier of "02" (paragraph [0038]). Similarly, camera 60 provides a modified channel identifier to camera 70 (paragraph [0039]).

Nonetheless, both Coté and Adams teach the claimed features.

8. Applicant's arguments filed August 10, 2004, regarding claims 9-12 have been fully considered but they are not persuasive.

Claim 9 recites the limitation "the command" in line 11. Because this limitation lacks antecedent basis, it is unclear specifically which command this limitation refers to. Therefore, Yokoyama clearly teaches "command execution logic for executing *the command*", where "the command" is the control command disclosed in paragraphs [0044] and [0045]. The control command is executed if the first channel identifier matches a pre-determined value, where each of the plurality of serial devices uses the

same pre-determined value. Yokoyama uses "02" as an example of a predetermined value, to which each channel identifier is compared (paragraph [0043] and Fig. 6).

Therefore, the Examiner cannot allow claims 9-12.

9. Applicant's arguments filed August 10, 2004, regarding claims 15-20 have been fully considered but they are not persuasive.

The Examiner is not persuaded that Yokoyama in view of Applicant's Admitted Prior Art ("APA") fails to teach or suggest the invention as specified in claims 15-20. First, it should be noted that Applicant's claim language of "*one of a non-daisy-chain normal configuration and a daisy chain configuration*" as recited in claim 15, lines 12-13 suggests that each device includes a bus coupling the serial devices in one of either a non-daisy chain normal configuration or a daisy chain configuration. Yokoyama clearly teaches "*one of a non-daisy-chain normal configuration and a daisy chain configuration*" — specifically teaching the daisy chain configuration.

In the alternative, Yokoyama in view of the APA teaches the invention as specified in claims 15-20. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

the suggestion or motivation for doing so would have been to provide the serial devices with the capability of responding or acting on information communicated when their respective select lines are asserted (page 1, lines 16 and 17).

Therefore, the Examiner cannot allow claims 15-20.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna K. Mason whose telephone number is (571) 272-3629. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on (571) 272-3632. The fax phone

Art Unit: 2111

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKM

A handwritten signature in black ink, appearing to read 'Mark H. Rinehart', enclosed within a large, loopy oval shape.

MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100